

Amendment to the Claims:

Claims 1-37 (Canceled)

38. (Currently amended) A transgenic mouse whose genome comprises a null homozygous disruption in an MC3-R gene allele; said allele comprising the sequence of set forth in SEQ ID NO:1; said null allele comprising exogenous DNA, said exogenous DNA comprising a gene encoding a visible marker, wherein in a male transgenic mouse said gene is capable of expression in the testis, wherein as a result of the disruption, the transgenic mouse exhibits, relative to a wild-type mouse, passive behavior or a decrease in attempts to escape.

39. (Currently amended) The transgenic mouse of claim 38, wherein the disruption was produced using a targeting construct comprising the sequences set forth in SEQ ID NO:3 and SEQ ID NO:4).

Claim 40 (canceled)

41. (New) The transgenic mouse of claim 38 wherein said mouse is heterozygous for said disruption.

42. (New) The transgenic mouse of claim 38 wherein said mouse is homozygous for said disruption.

43. (New) The transgenic mouse of claim 42 wherein said mouse exhibits, relative to a wild-type control mouse, passive behavior.

44. (New) The transgenic mouse of claim 38 wherein said exogenous DNA further comprises a gene encoding a selection marker.

45. (New) The transgenic mouse of claim 44 wherein said gene is a neomycin resistant gene.

46. (New) The transgenic mouse of claim 38 wherein said visible marker is lacZ.

47. (New) A method of identifying an agent capable of modulating activity of a MC3-R gene or MC3-R gene expression product, the method comprising:

- a. administering a putative agent to the transgenic mouse of claim 38;
- b. administering the agent to a wild-type control mouse; and
- c. comparing a physiological response of the transgenic mouse with that of the control mouse, wherein said physiological response is a change in passive behavior;

- d. wherein a difference in the physiological response between the transgenic mouse and the control mouse is an indication that the agent is capable of modulating activity of the MC3-R gene or MC3-R gene expression product.